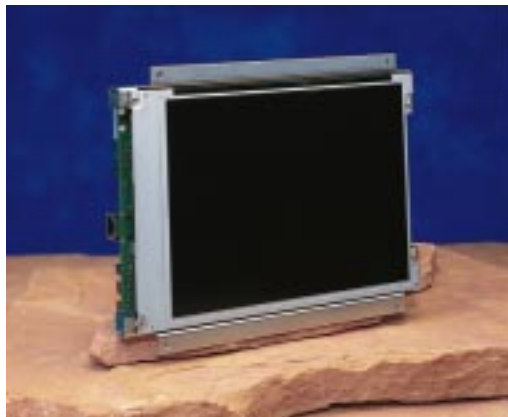


**ZF netDISPLAY™**  
*Complete OEM  
touch-screen computer*



*Complete desktop PC functionality*  
*8.2" passive matrix or 12.1" active  
matrix color display*  
*100MHz 486 PC*

*Proven PC compatibility*  
*Touch-screen capability*

*10Base-T Ethernet*

*Rapid integration*

*Ready-to-run*

*Rugged*

***Ideal Applications Include:***

*Internet Appliances*

*Gaming*

*Information Kiosks*

*Point of Sale*

*Instrumentation*

*Security*

*Transportation Management*

*Industrial Control*

The ZF netDisplay™ OEM Flat-Panel Computer is a complete, ready-to-run, 486/100MHz PC with a color LCD and optional touch-screen in a compact form factor, ideal for a wide range of OEM applications. The netDisplay offers 100% desktop computer functionality in a rugged, easily integrated package just over 2 inches deep and weighing only 2 pounds.

The netDisplay offers everything you'd expect from a PC-compatible. Standard I/O includes two or four serial ports, parallel port, keyboard port, external VGA and IDE floppy and hard disk controllers. The netDisplay features 18MB of on-board RAM standard, and 2MB of solid-state flash memory. The netDisplay also features an industry-standard compact flash socket allowing simple expansion of solid-state memory\*.

With 10Base-T Ethernet also standard, the netDisplay is a perfect match for networked applications. The netDisplay supports Novell NetWare, SunSoft Solaris and a wide array of network operating systems.

The ZF netDisplay is available with either an 8.2" passive matrix or 12.1" active matrix color LCD. A high reliability, advanced technology touch-screen is available as an inexpensive option.

Powered by ZF MicroSystems' award-winning OEMmodule SCC™, a complete PC smaller than a credit card, the netDisplay boots into DOS or Windows straight out of the box. This high level of integration frees you from the task of re-inventing the PC and allows you to focus on delivering true added value to your customers. The netDisplay is certified to run many other popular operating systems including Microsoft® Windows® CE, LINUX, Phar Lap's TNT Embedded ToolSuite® and Microware OS-9.

When your design calls for a flat-panel PC, turn to netDisplay, the industry's fastest, most cost-effective path to embedded touch-screen computing. The netDisplay offers 100% PC functionality backed by ZF MicroSystems' unparalleled customer support and guaranteed compatibility. For more information or to place an order, contact ZF MicroSystems or your local sales representative today.

\* Expansion options vary by model number.



**We Make Computing Invisible**

# SPECIFICATIONS

ZF netDisplay™ Features

## CPU 486-100MHz

- DRAM Controller Supports
- PC Core Logic with PC/AT Compatibility
- Fail-safe Boot ROM™
- Floppy Disk Controller
- EIDE Hard Drive Interface
- Solid State Flash Memory Devices
- Watchdog Timer
- PC BIOS
- Embedded DOS

## Ethernet Controller

- 10BaseT (twisted-pair), 10M bits/s
- IEEE 802.3 and Ethernet standards
- Supports AU1 to external 10Base2, 10Base5, 10BaseT, or 10BaseF MAU
- LNKST and RCV LED verification
- Network Boot PROM capability
- Supports Microsoft's Plug and Play System configuration
- NOS support, including Novell Netware, Microsoft Windows 95 and LAN Manager, SCO UnixWare, IBM LAN Server, SunSoft PC NFS and Solaris, Artisoft LANtastic, Banyan Vines

## Standard Ports

- Two/Four 16550-compatible serial ports
- One/Two fully-compatible PC/AT parallel printer ports, plus bi-directional operation (EPP).
- Keyboard port

## Flat-Panel Display Specifications

### 8.2" Passive Matrix Color Display

- Resolution: 640 x 480
- Viewing angle: 40°
- Brightness: 70/100 cd/m²
- Contrast ratio: 25 min., 50 typical

### 12.1" Active Matrix Color Display

- Resolution: 800 x 600
- Viewing angle: 160°
- Brightness: 70/150 cd/m²
- Contrast ratio: 100 min., 150 typical

## Optional Touch Screen

- Resistive technology
- Transparency: 80% ± 5%
- High resolution: 4096 x 4096
- Operating life: 35 million touches

## Floppy Disk Controller

- Software compatible with 765B controller.
- Integrated digital data separator capable of data transfer rates up to 2Mbps.
- Requires no external components.
- EV requires special cabling.

## IDE Hard Drive Interface

- Full 40-pin interface to standard IDE hard disk drive.
- Up to two IDE drives (master/slave).
- Supports CompactFlash™.

## Solid State Flash Memory Devices

- 2MB Internal Flash Memory.
- 1.4MB Resident Flash Disk available for DOS and OEM software use, usually the boot drive.
- One 32-pin sockets for JEDEC byte-wide memory Flash EPROM or NVRAM (SCX).
- Expandable by adding 2MB to 60MB of CompactFlash.

## Electrical Specifications

- Requires 5VDC @ 1.3 A, 12VDC @ 250mA

## Mechanical/Environmental

- PC/104 bus header
- Standard ribbon cable connectors
- **Operating temperature:** 50°F to 104°F (10°C to 40°C)
- **Storage temperature:** -4°F to 140°F (-20°C to 60°C)
- **Relative humidity:** 5% to 85% non-condensing
- **Size and Weight:**  
12" Display + SystemCard:  
Size: 9.2" x 11.1" x 2.2" (234mm x 282mm x 56mm), Weight: 2 lbs (907 gm)

12" Display + 104Card/EV:  
Size: 9.2" x 11.1" x 2.2" (234mm x 282mm x 56mm), Weight: 1 lbs 11oz (766 gm)

8" Display + SystemCard:  
Size: 7.1" x 8.7" x 2.2" (180mm x 221mm x 56mm), Weight: 1 lbs 8oz (681 gm)

8" Display + 104Card/EV:  
Size: 7.1" x 8.7" x 2.2" (180mm x 221mm x 56mm), Weight: 1 lbs 4oz (567 gm)

## Ordering Information

### ND1-486-Q-01

netDisplay SCX, 12-inch TFT Active Matrix LCD (no touch)

### ND1-486-Q-02

netDisplay SCX, 12-inch TFT Active Matrix LCD, Touch-screen

### ND2-486-Q-01

netDisplay SCX, 8-inch STN Passive Matrix LCD (no touch)

### ND2-486-Q-02

netDisplay SCX, 8-inch STN Passive Matrix LCD, Touch-screen

### ND3-486-Q-01

netDisplay 104, 12-inch TFT Active Matrix LCD (no touch)

### ND3-486-Q-02

netDisplay 104, 12-inch TFT Active Matrix LCD, Touch-screen

### ND4-486-Q-01

netDisplay 104, 8-inch STN Passive Matrix LCD (no touch)

### ND4-486-Q-02

netDisplay 104, 8-inch STN Passive Matrix LCD, Touch-screen

### ND1-486-K-02

netDisplay SCX, SCX486 Development Kit, 12-inch TFT Active Matrix LCD, Touch-screen

### ND2-486-K-02

netDisplay SCX, SCX486 Development Kit, 8-inch STN Passive Matrix LCD, Touch-screen

### ND3-486-K-02

netDisplay 104, 104Card/EV Development Kit, 12-inch TFT Active Matrix LCD, Touch-screen

### ND4-486-K-02

netDisplay 104, 104Card/EV Development Kit, 8-inch STN Passive Matrix LCD, Touch-screen

## Note:

For more detailed information on CPU specifications, please refer to the SystemCard or 104Card/EV datasheets.



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